

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
9 October 2003 (09.10.2003)

PCT

(10) International Publication Number
WO 03/084226 A1

(51) International Patent Classification⁷: **H04N 7/00**

(21) International Application Number: PCT/FI03/00234

(22) International Filing Date: 27 March 2003 (27.03.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
20020617 28 March 2002 (28.03.2002) FI

(71) Applicant (for all designated States except US): **NOKIA CORPORATION** [FI/FI]; Keilalahdentie 4, FIN-02150 Espoo (FI).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **PUPUTTI, Matti** [FI/FI]; Uudenmaankatu 12 b 35, FIN-20500 Turku (FI). **VÄRE, Jani** [FI/FI]; Jahtilähteenkatu 8 E, FIN-20320 Turku (FI).

(74) Agent: **EREN OY AB**; P.O. Box 16, FIN-00101 Helsinki

(81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

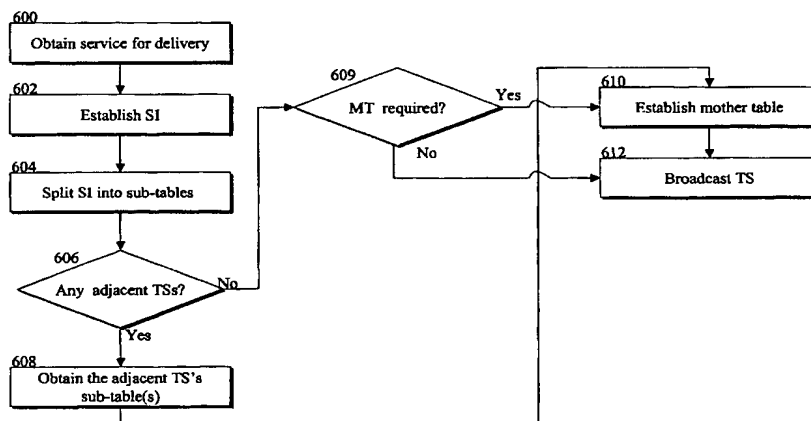
(84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: METHOD AND SYSTEM FOR ANNOUNCING A TRANSPORT STREAM IN A DIGITAL BROADCAST NETWORK



(57) Abstract: A method and an arrangement for defining a sub-table structure for SI tables, which may be used to split one big Service Information (SI) table into several smaller tables. The splitting into the smaller sub-tables (Sub-Ts) requires less transmitted bandwidth because all the SI do not need to be broadcast to a End User Terminal (EUT). Also, the sub-table division enables relatively easy creation of local SI tables because sub-tables can serve as a basis for local Transport Stream (TS) announcement. By dividing tables into smaller ones, the amount of unnecessary information transmitted for the EUT is reduced. The TSs of an entire broadcast network can be divided. Moreover, neighbouring, or adjacent, TSs (cells) can announce and advertise their content to each other, and further to the EUT. A sub-table (Sub-T) of the TS is sent to the adjacent TS. The preferable embodiments enable the EUT for moving in DVB network in a blinded manner being not specially informed about where or under which cell's coverage the EUT is. However, the EUT is able to obtain the information what content (TSs) is locally available because of the sub-table structure.

WO 03/084226 A1

INTERNATIONAL SEARCH REPORT

International application No.

PCT/FI 03/00234

A. CLASSIFICATION OF SUBJECT MATTER

IPC7: H04N 7/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC7: H04H, H04N

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

SE,DK,FI,NO classes as above

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

EPO-INTERNAL, WPI DATA, PAJ, INSPEC

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 0917355 A1 (SONY INTERNATIONAL GMBH), 19 May 1999 (19.05.99), column 3, line 25 - column 6, line 33, figures 2-5 --	1-41
X	EP 1001631 A1 (CANAL+ SOCIETE ANONYME), 17 May 2000 (17.05.00), page 2, line 3 - page 4, line 7; page 8, line 29 - page 11, line 1 --	1-41
A	WO 9823093 A1 (NDS LIMITED), 28 May 1998 (28.05.98), page 1, line 3 - page 3, line 24 --	1-41

☒ Further documents are listed in the continuation of Box C.☒ See patent family annex.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance: the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance: the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search

18 June 2003

Date of mailing of the international search report

24-06-2003

Name and mailing address of the ISA/

Swedish Patent Office

Box 5055, S-102 42 STOCKHOLM

Facsimile No. +46 8 666 02 86

Authorized officer

Catharina Karlsson/MN

Telephone No. +46 8 782 25 00

INTERNATIONAL SEARCH REPORT

International application No.

PCT/FI 03/00234

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WO 0002380 A2 (UNITED VIDEO PROPERTIES, INC.), 13 January 2000 (13.01.00), page 7, line 25 - page 8, line 32; page 10, line 27 - page 11, line 32; page 23, line 8 - line 31 --	1-41
A	ETSI EN 300 468 V1.4.1.(2002-11) Digital Video Broadcasting (DVB); Specification for Service Information (SI) in DVB systems pages 1-25 page 10 - 12; page 17 - 19 -- -----	1-41

INTERNATIONAL SEARCH REPORT

International application No.

PCT/JP 03/00234

Patent document cited in search report			Publication date	Patent family member(s)		Publication date
EP	0917355	A1	19/05/99	CN	1219809 A	16/06/99
				JP	11239186 A	31/08/99
EP	1001631	A1	17/05/00	AU	758667 B	27/03/03
				AU	6484799 A	29/05/00
				BR	9915147 A	07/08/01
				CA	2349335 A	18/05/00
				CN	1332939 T	23/01/02
				CZ	20011624 A	16/01/02
				EP	1129578 A	05/09/01
				HU	0104210 A	28/03/02
				IL	142871 D	00/00/00
				JP	2002530020 T	10/09/02
				NO	20012180 A	09/07/01
				NZ	512106 A	31/01/03
				PL	347569 A	08/04/02
				TR	200101300 T	00/00/00
				WO	0028742 A	18/05/00
WO	9823093	A1	28/05/98	DE	69719208 D	00/00/00
				EP	0940043 A,B	08/09/99
				GB	9624001 D	00/00/00
				US	6438171 B	20/08/02
WO	0002380	A2	13/01/00	AU	4716899 A	24/01/00
				BR	9911910 A	27/03/01
				CA	2336640 A	13/01/00
				CN	1313007 T	12/09/01
				EP	1095504 A	02/05/01
				JP	2002520916 T	09/07/02
				TW	416224 B	00/00/00
				US	2002166120 A	07/11/02